thickness of the coating material on the particles is 1-1000 nm, velocity of the droplets in the zone is 0.1-100 cm/sec, and residence of the droplets in the zone is from instantaneous to a fraction of a minute.

17.(Amended) The method of claim 16 wherein the particles are less than about 50 microns in diameter, temperature in the zone is 100-500°C, dilution ratio in the coating slurry of milliliters of coating solution or precursor solution per gram of phosphor particles is 200-3000, thickness of the coating material on the particles is 2-200 nm, velocity of the droplets in the zone is 1-50 cm/sec, and residence time of the droplets in the zone is 0.1-10 seconds.

Remarks/Arguments

Claims 1,3-8 and 10-20 remain in this application. Claim 14 is to be deleted on entry of this amendment.

This amendment is being presented in response to the Advisory Action and on the recommendation of the Examiner in order to reduce issues on appeal. On the issue of the definition of the term "improving integrity" contained in claim 13, it is requested to delete the offending term from claim 13 to render the issue moot.

Entry of this amendment is requested for the reason that it will reduce issues on appeal.

The only issue on appeal is the unobviousness of the herein-claimed subject matter under 35 USC 103(a) on combination of

prior art references containing the Petersen reference. As already argued, the Petersen reference does not disclose anything that would render the herein-claimed method obvious, alone or in combination with any of the other applied references, A side-by-side comparative color chart of the Petersen reference method and the herein-claimed Naval Research Laboratory (NRL) method, given to the Examiner during the interview on July 30,2002,shows formation of the coating material on the particle after the spraying step in the NRL method and formation of the coating material on the particle prior to the spraying step which difference results in unexpected advantages. Independent claims 1 and 13 were amended to focus on this difference by reciting that the precursor was not precipitated until after the spraying step. Furthermore, it is believed that the Petersen reference leads away from the herein-claimed method by causing precipitation before the spraying step.

Contrary to the Examiner's comments in the Advisory Action, the rejection on 35 USC 103(a) is not based on Applicant's arguments as to non-applicability of the individual references but to the combinations of the references. If the Petersen reference leads away from the herein-claimed subject matter, as has been argued, how can such a reference be combined with other reference or references to render obvious the herein-claimed subject matter?

Enclosed is a marked-up version of the changes made to the specification and claims by the current amendment. The attachment

is captioned "Version with markings to show changes made." Also enclosed is an Appeal Brief which has been prepared on the assumption that this amendment will be entered.

Respectfully submitted

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that this document is faxed to the PTO on the date shown below.

4/4/03
Date

George A. Kap
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the specification:

Paragraph beginning at line 3 on p.9 has been amended as follows:

In order to fully coat the particles or provide complete hermeticity, it may be necessary to coat the particles more than once. Also, particles of the coating material, can also be present since volume of the coating material on a particle is unexpectedly high. To demonstrate the unexpectedly high volume of the coating material on a coated particle, a 90 nm thick coating on a 5-micron particle is equivalent to about a micron particle of the coating material. Particles of the coating material, as well as uncoated particles, also decrease efficiency and brightness of a batch of coated particles containing a preponderance of coated particles where the coating material is different from the particles and a lesser amount of uncoated or partially coated particles and particles of the coating material. Particles of the coating material are significantly reduced by this method [mathod].

In the claims:

Please delete claim 14 and amend claims 1,5,13,16 and 17 as follows:

1.(Twice Amended) A method for coating solid particles comprising the steps of

(a) adding solid particles to a liquid coating solution or precursor solution to form a liquid coating slurry containing a coating precursor, solvent for the precursor and the solid

particles dispersed therein whereby the precursor is not precipitated until after spraying, (b) spraying the coating slurry to form droplets containing at least one particle,

(c) passing the droplets through a zone where the droplets are dried and form dry coated particles wherein the coating material is formed from the coating solution or the precursor solution, and

(d) heat treating the coating material on the particles to remove volatile matter from the coating material.

5.(Amended) The method of claim 3 wherein the particles are less than about 50 microns in diameter, temperature in the zone is 100-500°C, dilution ratio in the coating slurry of milliliters of coating solution or precursor solution per gram of phosphor particles is 200-3000, thickness of the coating material on the particles is 2-200 nm, velocity of the droplets in the zone is 1-50 cm/sec and residence time of the droplets in the zone is 0.1-10 seconds.

13.(Twice Amended) A method comprising the steps of

(a) preparing a liquid precursor solution by dissolving a coating precursor in a liquid precursor solvent;

(b) mixing the precursor solution with a diluent, that is miscible with the precursor solvent, to form a liquid coating solution;

(c) adding with mixing solid particles to the coating solution to form a liquid coating slurry containing the coating precursor dissolved in the coating solution and the solid particles

dispersed therein whereby the precursor is not precipitated until after spraying;

(d) spraying the coating slurry to form droplets containing at least one particle;

(e) passing the droplets through a zone where the droplets are dried and form dry particles coated with a coating material formed from the precursor(s) solution;

(f) heat-treating the coating material on the particles to remove volatile matter on the coating material and to convert the coating material from electrically non-conducting amorphous to electrically conducting crystalline [and/or to improve integrity of the coating] material.

16.(Amended) The method of claim 15 wherein the particles are less than about 100 microns in diameter, dilution ratio in the coating slurry of <u>milliliters of coating solution or precursor solution per gram of phosphor particles</u> is 100-5000, thickness of the coating material on the particles is 1-1000 nm, velocity of the droplets in the zone is 0.1-100 cm/sec, and residence of the droplets in the zone is from instantaneous to a fraction of a minute.

17.(Amended) The method of claim 16 wherein the particles are less than about 50 microns in diameter, temperature in the zone is 100-500°C, dilution ratio in the coating slurry of <u>milliliters of coating solution or precursor solution per gram of phosphor particles</u> is 200-3000, thickness of the coating

material on the particles is 2-200 nm, velocity of the droplets in the zone is 1-50 cm/sec, and residence time of the droplets in the zone is 0.1-10 seconds.